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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,429	10/25/2001	Seymour Levine	57127	8221

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EXAMINER

CHIN, GARY

ART UNIT PAPER NUMBER

3661

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/004,429

**Applicant(s)**

LEVINE, SEYMOUR

**Examiner**

Gary Chin

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 64-95 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-3 and 64-95 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claim 94 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As per claim 94, the specification as originally filed is completely silent as to how the crash site is being estimated by the processor. In the absence of the aforementioned information, one of ordinary skill in the art cannot make and use the same without undue experimentation.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 64-65, 69-74, 78-80 and 84-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al (patent no. 5931877) in view of Kuroda et al (patent no. 5381140).

As per claims 1-3, 64-65, 69-74, 80 and 84-91, these newly presented claims are corresponding to the original claims 1-4, 12-13, 24, 28 and 30-35 respectively. The reason for the rejection for the abovementioned original claims based upon the combined teachings of

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Smith et al and Kuroda et al as set forth in the last office action is also applied to the abovementioned newly presented claims and incorporated herein by reference.

As per claim 78, figure 1 and column 10, lines 5-17 of the Smith et al reference disclose the claimed method for real time monitoring and archiving of aircraft performance data and subsequently generating maintenance advisory when the analysis of the aircraft parameter indicative an aircraft problem including a global communication network (28, 30) and a ground based station (16, 20) for performing the steps of analyzing the performance data and generating an aircraft maintenance advisory. It is noted that the claimed step of transmitting the aircraft performance parameter to the ground based station has not been explicitly disclosed in the Smith et al reference. However, the Smith et al reference on column 2, lines 62-64 and column 5, lines 61-65 does disclose the transmitting of symptoms and data from the aircraft to the central data warehouse (or ground based station) in order to generate maintenance advisory or repair instructions. Further, it would have been readily apparent for one skilled in the art that the aforementioned symptoms and aircraft data have to be associated with the aircraft performance parameters in order to be useful in generating any maintenance advisory and repair instructions at the central data warehouse. Moreover, such feature of transmitting aircraft performance parameter to a ground based station is notoriously well known in the art at the time the invention was made and clearly taught in figure 1 and column 1, lines 53-60 of the Kuroda et al teaching. Hence, it would have been obvious for a person having ordinary skill in the art, based on the implied teaching in Smith et al, such aircraft performance parameter as taught in Kuroda et al either already has been used in the Smith et al system or would have been obvious to do so in

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order for the central data warehouse or ground based station to provide any maintenance advisory and repair instructions.

As per claim 79, the claimed steps of transmitting, receiving and displaying maintenance advisory are taught in figure 1 (items 15, 22, 28 and 30) and column 1-2 of the Smith et al teaching.

5. Claims 66-68, 75-77 and 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al and Kuroda et al in further in view of Monroe (patent no. 5798458) submitted by applicant.

As per claims 66-68, 75-77 and 81-83, these newly presented claims are corresponding to the original claims 6-8, 15-17 and 25-27. The reason for the rejection for the abovementioned original claims based upon the combined teachings of Smith et al, Kuroda et al and Monroe as set forth in the last office action is also applied to the abovementioned newly presented claims and incorporated herein by reference.

6. Claims 92-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuroda et al in view of Monroe.

As per claims 92-95, these newly presented claims are corresponding to the original claims 36-39 respectively. The reason for the rejection for the abovementioned original claims based upon the combined teachings of Kuroda et al and Monroe as set forth in the last office action is also applied to the abovementioned newly presented claims and incorporated herein by reference.

7. Applicant's arguments with respect to claims 78-79 have been considered but are moot in view of the new ground(s) of rejection.

8. In the amendment, applicant essentially alleged that (1) the Smith et al system performs the failure analysis on the aircraft and does not generate maintenance advisory in real time at the ground based station as required, (2) the Kuroda et al reference fails to disclose a global communication network, (3) the Monroe reference also fails to disclose a worldwide communication system and (4) the cited references fail to disclose the claimed display and control means connected to the processing means and the feature of converting the aircraft performance and control parameters, when necessary, to digital format as required in the original claims 1-3.

9. The examiner strongly disagrees with such allegations. As to allegation (1), the Smith et al reference in column 3, lines 60-64, column 4, lines 21-27 and 63-65, column 5, lines 45-50 and 61-65, column 6, lines 49-54 and column 10, lines 52-54 clearly teaches the claimed feature of performing failure analysis at the central data warehouse (or ground based station) and generating maintenance advisory in real time as claimed. It is further noted that although the Smith et al system using a PMA as an interface between the aircraft and the central data warehouse to perform aircraft repair (emphasis added), however, the repair is based upon the diagnosis and instructions sent from the central data warehouse and as such meets the limitations as claimed. As to allegation (2), the Kuroda et al reference in column 4, lines 4-5 clearly discloses that satellite 3 in figure 1 is a GPS (global positioning system) satellite and it is well recognized by one skilled in the art that such GPS constitutes a global communication network as claimed. Further, the Kuroda et al reference is cited to show the feature of transmitting aircraft performance data or parameter in real time is well known in the art. It is the examiner's

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contention that based upon the implied teaching in Smith et al, it would have been obvious for one skilled in the art that such well known real time transmission of aircraft parameter as taught in Kuroda et al either already has been employed in the smith et al system or would have been obvious to do so in order to provide any real time maintenance advisory at the central data warehouse. As to allegation (3), applicant's attack on the Monroe reference is inappropriate. The Monroe reference is merely used as a secondary 103 reference to show that the claimed "multiplexer" is notoriously well known in the art and is not intended as a 102 reference to include all the claimed limitations. Again, it is the examiner's contention that it would have been readily apparent for a skilled artisan to incorporate such well known device into the Kuroda et al system so that additional input circuits or hardware elements can be eliminated. In response to allegation (4), the central data warehouse shown in item 16, figure 1 of the Smith et al reference is a data processing system and it would have been well recognized by one skilled in the art that such data processing system must include some sort of display and control means in order for the technician to perform any meaningful on-line diagnosis. As to the means for converting the data into digital format when necessary, such A/D converter is routinely used in any data processing device to convert the analog signals into digital format if needed. It would have been obvious for one skilled in the art that such well known A/D converter either already has been included in the Smith et al and Kuroda et al systems or would have been obvious to do so, so that processing of the parameters will be in a proper format.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary Chin whose telephone number is (703) 305-9751. The examiner can normally be reached on Monday-Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Cuchlinski can be reached on (703) 308-3873. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
GARY CHIN  
PRIMARY EXAMINER